

*A. F. Z...*

PATENT  
HMD2000-1

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS & INTERFERENCES**

Applicants: Thomas N. Giaccherini, et al.

Examiner: Ly, Anh Vu H.

Serial No.: 09/579,324

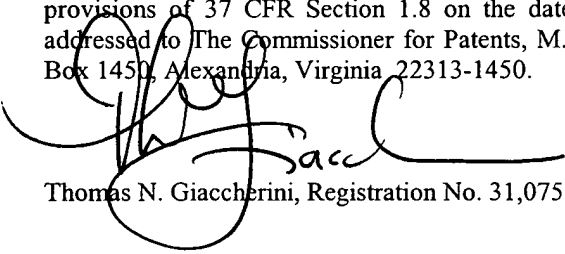
Group Art Unit: 2667

Title: **Method for Utilizing  
Excess Communications Capacity**

Filed: 25 May 2000

**CERTIFICATE OF MAILING UNDER 37 CFR 1.8**

The undersigned hereby certifies that this document is being transmitted to the United States Patent Office by U.S.P.S. First Class Mail in accordance with the provisions of 37 CFR Section 1.8 on the date subscribed to below, and is addressed to The Commissioner for Patents, M.S. Appeal Brief- Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

  
Thomas N. Giaccherini, Registration No. 31,075

*1 March 2005.*

Date

**TRANSMITTAL OF APPEAL BRIEF**

The Commissioner for Patents  
Mail Stop Appeal Brief- Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

The Applicants submit the following documents to the Patent Office in support of the Notice of Appeal filed for the Present Patent Application on 25 October 2004:

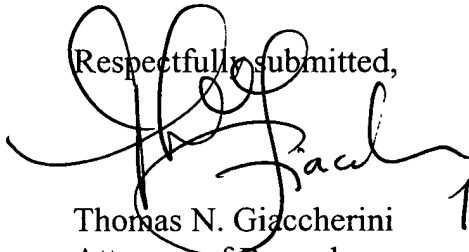
Transmittal of Appeal Brief for USSN 09/579,324  
1 March 2005  
Page Two

1. Appeal Brief (22 pages) in triplicate; and
2. Credit Card Charge Authorization.

The Applicants have submitted a Credit Card Charge Authorization to pay for the Petition fee at the small entity rate of \$225, together with the Appeal Brief filing fee of \$250, for a total of \$475.

The Applicants respectfully submit that this Appeal Brief is being filed within four months of the date of the Patent Office receipt of the Applicants' Notice of Appeal for the Present Patent Application. The Petition for Two Month Extension of Time, together with the two month period for filing the brief after filing of the Notice of Allowance, provides a four month period for submitting the Appeal Brief. This Appeal Brief is, therefore, being filed within the time limits prescribed by the Rules of the Patent Office.

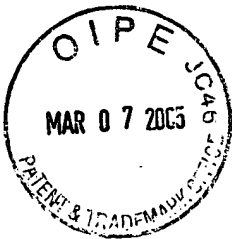
Respectfully submitted,



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1 March 2005.

Transmitted to the U.S. Patent Office  
with a Rule 8 Certificate by First Class Mail on 1 March 2005.



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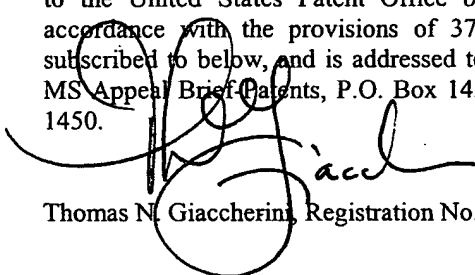
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Thomas N. Giaccherini, Registration No. 31,075

1 March 2005.  
Date

**APPEAL BRIEF**

The Commissioner for Patents  
Mail Stop Appeal Brief-- Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

**I. INTRODUCTION & BACKGROUND**

The Applicants have appealed from the final rejection of Independent Claims 1 and 11 and Dependent Claims 2-10 and 12-26. The final rejection was contained in the Office Action dated 24 June 2004 of Claims 1-26 are pending in the Present Application. Claims 1-26 are presented in the attached Appendix.

## II. REAL PARTY IN INTEREST

The Present Application has been assigned of record to SkyVault Secure Digital Distribution, Inc., a Corporation organized in the State of Nevada, and having its principal place of business in Carmel Valley, California. The Assignee, which owns the exclusive right, title and interest in and to the Present Patent Application, is the real party in interest.

## III. RELATED APPEALS AND INTERFERENCES

Neither the Applicants, the Applicants' Assignee, nor their legal representative, is aware of any related appeals or interferences which will directly affect or be directly affected by, or have a bearing in, the Board's decision in the Present Appeal.

## IV. STATUS OF CLAIMS

Independent Claims 1 and 11 and Dependent Claims 2-10 and 12-26 are the only Claims pending in the Present Application. These Claims were placed under final rejection in the Official Action dated 24 June 2004. No other Claims are pending, were canceled, or have been allowed. This Appeal has been taken with respect to each of Claims 1-26.

## V. STATUS OF AMENDMENTS

The Applicants submitted a Request for Reconsideration on 24 August 2004 in response to the final rejection of Claims 1-26 contained in the Office Action dated 24 June 2004. The rejection of Claims 1-26 was maintained in an Advisory Action dated 4 October 2004.

## VI. SUMMARY OF THE CLAIMED SUBJECT MATTER

The subject matter of the Appealed Claims, and, in particular, Independent Claims 1 and 11, is discussed at pages 6, 7 and 9 of the Specification, and is illustrated by Figures 1-3 of the Drawings. The following excerpt from the Specification summarize the nature of the claimed subject matter on appeal.

“The present invention comprises methods and apparatus for delivering high quality digital signals to residential subscribers using the unused, excess capacity that is inherent in virtually all communication networks. In one preferred embodiment of the invention, satellites in low Earth orbit are employed to relay signals from a terrestrial gateway to subscribers in short bursts during the time that a satellite experiences underused capacity. Figure 1 illustrates this particular embodiment of the present invention. A satellite SAT in Earth orbit is capable of communicating with a ground station G. The ground station is connected to a terrestrial network, such as a public switched telephone network. When a satellite experiences a period of time when all its capacity is not utilized, the satellite can request an upload of data from the ground station. The ground station then sends packets of data to the satellite in short bursts. The satellite is capable of delivering packets of data to many different types of terminals, including

residences R, office building OB, cars and other vehicles C, aircraft A and boats B. The invention may be utilized to transmit signals to a wide variety of terminals, including cellular phones, personal digital assistants, portable computers and displays, or other intelligent appliances.”

Present Application, Page 6, Lines 1-16.

“In this embodiment, digitized, heavily-encrypted packets are beamed up to the satellite from a ground station that stores an electronic, digital copy of a copyrighted first-run motion picture. In one embodiment, the transfer of packets is accomplished using asynchronous transfer methods, and the packets are then routed to, and resequenced in order at their final destination. As shown in Figures 2 and 3, the encrypted packets are received by an active beam steering antenna ANT at the subscriber’s premises R, and are stored in a set-top box STB which includes a large dual-partitioned array of computer hard drives. The set-top box is hard-wired to a wide screen display WSD. Packets may be received by the set-top box in very small increments over long periods of time. These incoming packets are stored in one of the two partitions in the set-top box. The second partition is used to supply on-demand unlimited-view programming while the first partition is filled incrementally. In one embodiment of the invention, programming is routed to the first partition over a one week period while the second partition is used for viewing. At the end of the one week period, the functions of the partitions are exchanged. The “old” programming on second partition is replaced with the next weeks’ fare, while the current programming is viewed using the first partition. This “rain-barrel” method of incrementally transporting data to a large storage device enables the utilization of the under-used capacity of a satellite network. The novel use of this method of distribution to a storage device which is securely integrated with an interactive viewing

apparatus provides secure distribution and viewing of copyrighted data. In one embodiment of the invention, the bulk of the download of programming from the satellite to the set-top box occurs during bursts that take place at night, when normal system traffic dwindles to levels far below peak day-time usage.”

Present Application, Page 7, Lines 1-24.

“While the preferred embodiment of the invention is specifically configured for providing revolutionary entertainment programming, the invention may be utilized to transport any kind of data during the non-peak hours or under-utilized periods of operation of a satellite network. While the preferred embodiment is described as a particular use of low Earth orbit satellite constellations, any combination of LEO, MEO, GEO or other satellites, sub-orbital platforms or any other vehicle may be employed to implement the invention. The invention is not limited to using the excess capacity of satellite systems. Due to the novel incorporation of the “rain-barrel” feature for accumulating data slowly, over a long period of time and in small increments, any network of conventional copper land-lines, fibers, broadcast or microwave towers, cellular, PCS or any other network may benefit from a combination with the present invention. The invention may be practiced using the Internet and TCP/IP or TCP/UDP, over public switched telephone networks or over a private data network.”

Present Patent Application, Page 9, Lines 6-19.

## VII. GROUNDS OF REJECTION FOR REVIEW ON APPEAL

The following issues are presented for review in the Present Appeal:

1. Whether Claims 1-2, 8-20 and 23-26 are unpatentable under 35 U.S.C. Section 103(a) over Picco et al. (U.S. Patent No. 6 029 045) in view of Fenwick, Jr et al. (U.S. Publication No. 2003/0204852)?

2. Whether Claims 3-7 and 21-22 are unpatentable under 35 U.S.C. Section 103(a) over Picco et al. (U.S. Patent No. 6 029 045)?

## VIII. GROUPING OF CLAIMS

The final rejection of Claims 1-26 made in the Office Action dated 24 June 2004 will be argued by reference only to Independent Claims 1 and 11.

If Independent Claim 1 is deemed to be allowable, Dependent Claims 2-10 and 25, each of which depend directly or indirectly from independent Claim 1, will be allowable at least for the same reasons as parent Independent Claim 1.

If Independent Claim 11 is deemed to be allowable, Dependent Claims 12-24 and 26, each of which depend directly or indirectly from independent Claim 1, will be allowable at least for the same reasons as parent Independent Claim 11.



## IX. ARGUMENT

### The Patent Office Rejections

The Applicants respectfully contend that the rejections of Claims 1-26 are neither suggested nor motivated by Picco or Fenwick, but are based upon a selective combination of different features of the individual references using the Applicants' own disclosure as a guide for the combination. The combination of references proposed in the Second and Final Office Action is contrary to the individual teachings of each of the separate combined references, fails to consider the individual references in their entirety, and therefore can not be suggested or motivated by the prior art itself. This rejection, which is founded upon a selective combination of different features of the individual references using the Applicants' own disclosure as a guide for the combination, is contrary to well established law. Separate references may not be combined to reject a claim, even if all features of the claim are individually disclosed in different prior art references, unless there is a suggestion or motivation in the prior art itself to combine the references. *Micro-Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 41 USPQ2d 1238 (Fed. Cir. 1997) and *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). Moreover, the suggestion or motivation to combine references cannot be based upon use of an Applicant's own disclosure as a guide for combining the right references in the right way. *In re Fritch* 23 USPQ 2d 1780.

In the First Office Action dated 2 October 2005, the Examiner rejected the Applicants' Claims under Section 102, based upon the assertion that Picco (US Patent No. 6 029 045) alone anticipates the Applicants' Claims. The Applicants responded by asserting that Picco does not teach or suggest the "selectivity" feature recited in their Pending Claims. The Applicants pointed out that, contrary to the Invention defined by the Pending Claims, the content and time of broadcast of the Picco programming is under

the control of the broadcaster, and is not controlled by the viewer or subscriber. The Picco broadcasts constitute local advertising which is specifically matched to designated geographical regions, and which are inserted into the regular programming. See Applicants' response filed on 5 April 2004.

The Examiner agreed with these arguments, and withdrew the rejection of Applicants' Claims as being anticipated by Picco. See Second and Final Action dated 24 June 2004.

The Second and Final Office Action presents a new rejection which combines Picco with United States Patent Application Publication No. US2003/0204852 by Fenwick et al. The Examiner contends that although "Picco does not disclose the step of selectively retrieving data by a recipient for on-demand use at a time after said extended period of time," Fenwick discloses "a video distribution system for providing an interactive display to allow a user to select and control the deliver (delivery of programed material...." The Second and Final Office Action confirms that the Examiner now clearly concedes that Picco does not teach or suggest the "selectivity" feature recited in the Applicants' Claims. See Second and Final Office Action dated 24 June 2004, page 3, first full paragraph.

The Examiner now relies only upon Picco as disclosing the Applicants' method of transmitting data over a relatively long time period during non-peak hours. See, for example, Column 3, lines 19-24 of Picco, which discloses downloading of local content to the set-box by slowly trickling the local content data to the set-box and downloading the local content over the channels at some predetermined time when the set-box is probably not in use (*e.g.*, 3 a.m.) or downloading the local content over a separate channel. See also Column 9, Lines 1-3; and Column 9, Lines 48-60; or the Picco Specification which refers to downloading by trickling, and states:

“For the trickle technique, the amount of time required to download all of the pieces of local content depends upon how much extra band would exist in the satellite signal and may occur over several days or weeks. For the nightly download, it may require a complete night of download time in order to have sufficient local content for the next day .... ” Picco, Column 9, Lines 48-60.

Since the Examiner concedes that Picco does not teach the “selectivity” feature recited in the Appealed Claims, the Examiner combines Picco with Fenwick, Jr. et al. The Examiner has cited Fenwick as disclosing “a video distribution system for providing an interactive display to allow a user to select and control the delivery of program material.” See Second Office Action dated 24 June 2004, page 3, second full paragraph. Assuming, *arguendo*, that the Examiner’s interpretation of the Fenwick disclosure is correct, Applicants submit that there is clearly no suggestion in the prior art itself to combine Picco and Fenwick, as proposed in the Office Action, without relying upon Applicants’ own disclosure as a guide for the combination.

Picco discloses a trickle technique for downloading, but does not teach or suggest selectivity of content or viewing time by the subscriber. Fenwick discloses the selectivity feature, but only in the context of an "on-demand" system by which the broadcasts are immediately available to the subscriber in real-time. Combining the selectivity feature of Fenwick with the system disclosed by Picco would defeat the intended purpose of the Picco system, since the subscribers to Picco would be able to bypass the local content programming (advertisements) inserted into the regular programming by the broadcaster. Stated in other words, the Picco system does not want its subscribers to determine if they will see the local content. On the contrary, the essence of the Picco Invention is a system that forces subscribers to view the local content advertising. The objective of the Picco

Invention is to eliminate choice on the part of the viewer. The solitary purpose of Picco's Invention would be completely undermined by providing any degree of selectivity or control to the subscribers. The advertisers who pay to bring content to Picco's viewers would not purchase ads for very long if the viewers were not required to watch the local content material inserted by the broadcaster.

Similarly, modifying the "on-demand" broadcast system disclosed by Fenwick to include the "trickle technique" of downloading signal disclosed by Picco, would defeat the intended purpose of the Fenwick broadcast system, which is to provide its subscribers with immediate access to the selected programming. Stated in other words, requiring a subscriber to wait until a signal is downloaded either overnight or over the course of several weeks, as disclosed by Picco, is contrary to the primary objective of Fenwick, which is to provide its subscribers with immediate access to all desired viewing selected by subscribers.

Thus, although Picco discloses a "trickle technique for downloading signal," and Fenwick discloses selectivity of desired viewing by a subscriber, there is clearly no suggestion or motivation in the prior art itself to combine these references in any manner to result in a system in which a signal is downloaded by a trickle technique and the viewing content is controlled by the subscriber. On the contrary, combining the Picco and Fenwick references as proposed by the Examiner in the Second and Final Office Action defeats the primary objective of each of the two individual references for the reasons discussed above. The combination of Picco and Fenwick defeats the intended objective of both of the combined references because the combination fails to consider the overall teachings of each individual reference in its entirety, including disclosure in each reference which teaches against the combination. A modification to a prior art reference which defeats the intended purpose of the reference clearly cannot be suggested by the prior art itself. It is axiomatic that even if all features of a claim are disclosed in

separate prior art references, this does not defeat the patentability of the claim in the absence of a suggestion or motivation in the prior art itself to combine the references in a manner rendering the claim obvious.

Since it is clear that there is no suggestion or motivation in the disclosure of either Picco or Fenwick to modify and/or combine these references as proposed in the Second and Final Office Action, and since the proposed modification/combination would defeat the intended purpose of each reference, the only basis for combining these references as proposed by the Examiner in the Second and Final Office Action must be derived from the use of the Applicants' own disclosure as a guide for selectively modifying/combining selected portions of each reference to reconstruct the Applicants' Claims without considering the entirety of the teachings of each of the combined references individually. The rejections contained in the Second and Final Office Action are improper and erroneous as a matter of law, as set forth by the excerpts of authorities which follow.

### Decisions of Federal Courts Supporting Applicants' Traversing Arguments

The Applicants respectfully submit that the Examiner's rejections are completely unfounded upon the Federal Patent Laws. The Applicants' traversal of the Patent Office rejections are completely supported by a multitude of decisions of the Court of Appeals for the Federal Circuit.

In *Micro-Chemical, Inc. v. Great Plains Chemical Co., Inc.*, the Court ruled that:

"A determination of obviousness must involve more than indiscriminately combining prior art; a motivation or suggestion to combine must exist. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). As we recently stated:

Such a suggestion may come expressly from the references themselves. See, e.g., *In re Sernaker*, 702 F.2d 989, 994, 217 USPQ 1, 5 (Fed. Cir. 1983). It may come from knowledge of those skilled in the art that certain references, or disclosures in the references, are known to be of special interest or importance in the particular field. Cf. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297 n.24, 227 USPQ 657, 667 n.24 (Fed. Cir. 1985) (stating that the knowledge of one skilled in the art may provide the "teaching, suggestion, or inference" to combine references), cert. denied, 475 U.S. 1017 (1986). It may also come from the nature of a problem to be solved, leading inventors to look to references relating to possible solutions to that problem. See, e.g., *In re Rinehart*, 531 F.2d 1048, 1054, 189 USPQ 143, 149 (CCPA 1976) (considering the problem to be

solved in a determination of obviousness). *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996).” *Micro-Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 41 USPQ2d 1238 (Fed. Cir. 1997).

In the case of *Orthopedic Equipment Co. v. United States*, the CAFC declared that:

“[11] Claims may be obvious in view of a combination of references, even if the features of one reference cannot be substituted physically into the structure of the other reference. *In re Anderson*, 391 F.2d 953, 958, 157 USPQ 277,281 (CCPA 1968). What matters in the Section 103 non-obviousness determination is whether a person of ordinary skill in the art, having all of the teachings of the references before him, is able to produce the structure defined by the claim. *In re Twomey*, 218 F.2d 593, 104 USPQ 273,275 (CCPA 1955). The fact that features of one reference cannot be substituted into the structure of a second reference may indicate that the claims were non-obviousness in view of the combined teachings of the two references. But this is not necessarily so, as *Anderson*, supra, makes clear. The same can be said regarding a complete mechanical misfit between two separate patented devices when the combination is alleged to demonstrate the obviousness of patent claims.”

“[12] In other words, the fact that the two disclosed apparatus would not be combined by businessmen for economic reasons is not the same as saying that it could not be done because skilled persons in the art felt that there was some technological incompatibility that prevented this combination. Only the latter fact is telling one the issue of non-obviousness.” *Orthopedic Equipment Co. v. United States*, 217 USPQ 193, 200 (Fed. Cir. 1983).

In the decision of *In re Fritch*, the Court of Appeals for the Federal Circuit ruled that:

“[4] Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.”

“Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious “modification” of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” Wilson and Hendrix fail to suggest any motivation for, or desirability of, the changes espoused by the Examiner and endorsed by the Board. Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or “template” to piece together the



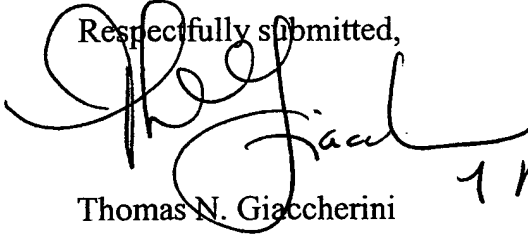
teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *In re Fritch* 23 USPQ 2d 1780, 1783 (Fed. Cir. 1997).

#### X. CONCLUSION

The Applicants respectfully submit that Independent Claims 1 and 11 are allowable over the prior art applied in the Final Action, and request that each of the two grounds of prior art rejection raised in the Final Action be reversed.

Dependent Claims 2-10 and 12-26 depend directly or indirectly from Independent Claims 1 and 11, and thus include all features of the two Parent Independent Claims. Therefore, dependent Claims 2-10 and 12-26 will be allowable, at least for the same reasons as Parent Independent Claims 1 and 11, if the rejections of Independent Claims 1 and 11 are reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Giaccherini', written over the typed name.

1 March 2005.

Thomas N. Giaccherini

Attorney of Record

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Transmitted to the U.S. Patent Office  
with a Rule 8 Certificate by First Class Mail  
on 1 March 2005.

## APPENDIX OF APPEALED CLAIMS

1. A method for on-demand use of preselected content by a recipient, comprising the steps of:

utilizing the excess capacity of a network by conveying data over said network during a period of less than maximum usage;

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receiving said data during said period of less than maximum usage;

accumulating said data over an extended period of time;

selectively retrieving said data by said recipient for on-demand use at a time after said extended period of time.

2. A method as recited in Claim 1, in which said network includes a satellite.

3. A method as recited in Claim 2, in which said satellite operates in low Earth orbit.

4. A method as recited in Claim 2, in which said satellite operates in medium Earth orbit.

5. A method as recited in Claim 2, in which said satellite operates in high Earth orbit.

6. A method as recited in Claim 2, in which said satellite operates in geosynchronous Earth orbit.

7. A method as recited in Claim 2, in which said satellite operates in low Earth orbit.

8. A method as recited in Claim 2, in which said network includes a sub-orbital platform.

9. A method as recited in Claim 2, in which said network includes a terrestrial wired network.

10. A method as recited in Claim 2, in which said network includes a terrestrial wireless network.

11. An apparatus comprising:

a gateway means for transmitting a plurality of digitized packets of data;

a relay means for receiving said plurality of digitized packets of data from  
said gateway means and for retransmitting during a time period when the  
total communications capacity of said relay means is not fully used;

a receiver means for collecting said plurality of digitized packets of data  
which are transmitted from said gateway means;

said receiver means including a storage means for accumulating said  
plurality of digitized packets of data incrementally over an extended period  
of time; and

means for selectively retrieving and using said plurality of digitized packets  
of data after a generally full program has been accumulated.

12. An apparatus as claimed in Claim 11, in which said receiver means is shielded  
to eliminate local radio frequency transmissions that could be used to make an  
unauthorized copy.

13. An apparatus as claimed in Claim 11, in which said receiver means is tamper-proofed to thwart unauthorized copying.
14. An apparatus as claimed in Claim 11, in which said relay means includes a satellite.
15. An apparatus as claimed in Claim 11, in which said relay means includes a sub-orbital platform.
16. An apparatus as claimed in Claim 11, in which said relay means includes a wired terrestrial network.
17. An apparatus as claimed in Claim 11, in which said relay means includes a wireless terrestrial network.
18. An apparatus as claimed in Claim 11, in which said receiver means is located on the Earth's surface.

19. An apparatus as claimed in Claim 11, in which said receiver means is located above the Earth's surface.

20. An apparatus as claimed in Claim 11, in which said receiver means is located in a fixed terminal.

21. An apparatus as claimed in Claim 11, in which said receiver means is located in a portable terminal.

22. An apparatus as claimed in Claim 11, in which said receiver means is located in a mobile terminal.

23. An apparatus as claimed in Claim 11, in which said receiver means is located in a sub-orbital platform.

24. An apparatus as claimed in Claim 11, in which said receiver means is located in a satellite in orbit.

25. A method as recited in Claim 1, in which the step of utilizing the excess capacity of a network by conveying data over said network includes conveying said data from a satellite, said method further including the step of:

prior to conveying said data over said network, transmitting said data from a terrestrial station to said satellite over said network during a period of less than maximum usage of said network.

26. An apparatus as recited in Claim 11, in which said digitized packets of data are transmitted from said gateway means to said relay means during a time when the total communications capacity of said gateway means is not fully used.